

WHAT IS CLAIMED IS:

1. A vehicle speed response type power steering system, comprising:

connecting means, disposed between a valve sleeve and a valve spool of a control valve, for changing rotational force applied to rotate said valve spool in relation to said valve sleeve in response to a pressure provided to said connecting means;

a solenoid valve for controlling a flow rate of oil provided from a power steering pump to supply the oil to said connecting means;

a controller controlling said solenoid valve in response to the vehicle speed; and

a cut-off valve controlling the flow rate of oil returned to an oil reservoir in response to pressure change of oil provided to said connecting means.

2. The system as defined in claim 1, wherein the connecting means comprises:

an extension ring integrally connected to said valve sleeve;

a reaction ring installed at a periphery of said valve spool for relative rotation of said reaction ring to be limited in relation to said valve spool and for an axial linear movement of said reaction ring to be enabled in relation to said valve spool;

a spring and a spring seat disposed to press said reaction ring to a lateral surface of said extension ring;

two control grooves formed to face each other in between said extension ring and said reaction ring for controlling the relative rotation of said reaction ring against said extension ring;

a control ball inserted into said control groove; and

a valve cap facing said reaction ring with a reaction chamber formed between said valve cap and said reaction ring while said spring and said spring seat are formed in said reaction chamber which forms a pressure to be applied to said reaction ring .

3. The system as defined in claim 2, wherein said spring seat is a round
5 plate inserted into a periphery of said valve spool.

4. The system as defined in claim 2, wherein said reaction ring is installed at a periphery of said valve spool by a hitching groove formed axially of said valve spool at an inner circumferential surface of said reaction ring, a fixed groove formed at an axial direction of said valve spool at an outer circumferential surface of said valve
10 spool in order to cope with said hitching groove and a fixed ball inserted between said hitching groove and said fixed groove.

5. A system as defined in claim 2, wherein the cut-off valve comprises:
a cut-off body provided with a small-diameter inlet and a large-diameter inlet formed to communicate with said reaction chamber, and an outlet formed to
15 communicate with said oil reservoir; and a cut-off spool and cut-off spring for switching a state of communicating said small-diameter inlet with said outlet to a state of communicating said large-diameter inlet with said outlet as the pressure applied to the large-diameter inlet is increased.

6. A system as defined in claim 5, wherein said outlet, said small-diameter
20 inlet and said large-diameter inlet are formed in a single file in the cut-off body, and said cut-off spool is provided with a conical land having a maximum diameter for communicating said small-diameter inlet with said outlet at all times and formed with the maximum diameter tapering off from said small-diameter inlet to said large-

diameter inlet, and an inner circumferential surface between said small-diameter inlet and said large-diameter inlet of said cut-off body is provided with an adjusting end for adjusting a communicating state between said small-diameter inlet and said large-diameter inlet as said conical land is moved.